

•	TRADEMAN.	SEQUENCE LISTING	
<110>	Fradet, Yves	•	
(110)	Chypre, Camille		
	Piche, Lyson		
	Garon, Genevieve		
	041011, 0011012010		
<120>	Method to Detect	Prostate Cancer in a Sample	
<130>	1619.0180001		
	70/552 440		
<140>			
<141>	2004-02-09		
<150×	60/445,436		
	2003-02-07		
11317	2003 02 07		
<160>	13		
<170>	PatentIn version	3.2	
<210>	1		
	47		
<212>			
	Homo sapiens		
1222	nome suprems		
<400>	1		
aattct	aata cgactcacta ta	gggaggat gaaacaggct gtgccga 4	17
<210>			
<211>			
<212>	•		
<213>	Homo sapiens		
<400>	2		
	ccca accetggeag	•	2 0
-50-00		-	
		•	
<210>	3		
	45		
<212>	DNA		
<213>	Homo sapiens	·	
<400>	3		
		gggcctgc ccatccttta aggaa 4	15
	anda oguecoucca ca	aggeorge coursecrea aggaa	: J
<210>			
<211>			
<212>	•		
<213>	Homo sapiens		
~400÷	4	•	
<400>			
cayyaa	gcac aaaaggaagc	2	2 0
<210>	5		
	24		
<212>			
<213>	Homo sapiens		

<400> 5 cccagtctgc	ggcggtgttc	tgggʻ				24
<210> 6 <211> 28 <212> DNA <213> Hom	o sapiens					
<400> 6						
cgcttgtgag	ggaaggacat	tagaagcg				28
<210> 7 <211> 506 <212> DNA <213> Hom	o sapiens					
<400> 7						
caggaagcac	aaaaggaagc	acagaggtaa	gtgctttata	aagcactcaa	tttctactca	60
gaaatttttg	atggccttaa	gttcctctac	tcgtttctat	ccttcctact	cactgtcctc	120
ccggaatcca	ctaccgattt	tctatttctt	gcctcgtatt	gtctgactgg	ctcacttgga	180
tttatcctca	cggagtctgg	attttctacc	cgggctcacc	tccgtccctc	catatttgtc	240
ctccactttc	acagatccct	gggagaaatg	cccggccgcc	atcttgggtc	atcgatgagc	300
ctcgccctgt	gcctggtccc	gcttgtgagg	gaaggacatt	agaaaatgaa	ttgatgtgtt	360
ccttaaagga	tgggcaggaa	aacagatcct	gttgtggata	tttatttgaa	cgggattaca	420
gatttgaaat	gaagtcacca	aagtgagcat	taccaatgag	aggaaaacag	acgagaaaat	480
cttgatggct	tcacaagaca	tgcaac				506
<210> 8 <211> 278 <212> DNA <213> Home	o sapiens					
<400> 8 caggaagcac	aaaaggaagc	acagagatcc	ctgggagaaa	tgcccggccg	ccatcttggg	60
tcatcgatga	gcctcgccct	gtgcctggtc	ccgcttgtga	gggaaggaca	ttagaaaatg	120
aattgatgtg	ttccttaaag	gatgggcagg	aaaacagatc	ctgttgtgga	tatttatttg	180
aacgggatta	cagatttgaa	atgaagtcac	caaagtgagc	attaccaatg	agaggaaaac	240
agacgagaaa	atcttgatgg	cttcacaaga	catgcaac			278
<210> 9 <211> 2036 <212> DNA	5					

<213> Homo sapiens

<220> <221> misc_feature <222> (1472)..(1472) <223> n is a or c or g or t <220> <221> misc_feature <222> (1517)..(1517) <223> n is a or c or g or t <220> <221> misc_feature <222> (1563)..(1563) <223> n is a or c or g or t <400> 9 agaagctggc atcagaaaaa cagaggggag atttgtgtgg ctgcagccga gggagaccag 60 gaagatetge atggtgggaa ggacetgatg atacagagga attacaacae atataettag 120 tgtttcaatg aacaccaaga taaataagtg aagagctagt ccgctgtgag tctcctcagt 180 gacacagggc tggatcacca tcgacggcac tttctgagta ctcagtgcag caaagaaaga 240 ctacagacat ctcaatggca ggggtgagaa ataagaaagg ctgctgactt taccatctga 300 ggccacacat ctgctgaaat ggagataatt aacatcacta gaaacagcaa gatgacaata 360 taatgtctaa gtagtgacat gtttttgcac atttccagcc cctttaaata tccacacac 420 caggaagcac aaaaggaagc acagagatcc ctgggagaaa tgcccggccg ccatcttggg 480 tcatcgatga gcctcgccct gtgcctggtc ccgcttgtga gggaaggaca ttagaaaatg 540 aattgatgtg ttccttaaag gatgggcagg aaaacagatc ctgttgtgga tatttatttg 600 aacgggatta cagatttgaa atgaagtcac aaagtgagca ttaccaatga gaggaaaaca 660 gacgagaaaa tcttgatggc ttcacaagac atgcaacaaa caaaatggaa tactqtqatq 720 acatgaggca gccaagctgg ggaggagata accacggggc agagggtcag gattctggcc 780 ctgctgccta aactgtgcgt tcataaccaa atcatttcat atttctaacc ctcaaaacaa 840 agctgttgta atatctgatc tctacggttc cttctgggcc caacattctc catatatcca 900 gccacactca tttttaatat ttagttccca gatctgtact gtgacctttc tacactgtag 960 aataacatta ctcattttgt tcaaagaccc ttcgtgttgc tgcctaatat gtagctgact 1020 gtttttccta aggagtgttc tggcccaggg gatctgtgaa caggctggga agcatctcaa 1080 gatctttcca gggttatact tactagcaca cagcatgatc attacggagt gaattatcta 1140 atcaacatca tecteagtgt etttgeecat actgaaatte attteecact tttgtgeeca 1200 ttctcaagac ctcaaaatgt cattccatta atatcacagg attaactttt ttttttaacc 1260 tggaagaatt caatgttaca tgcagctatg ggaatttaat tacatatttt gttttccagt 1320

gcaaagatga ctaagtcctt tatccctccc ctttgtttga ttttttttcc agtataaagt 1380 taaaatgctt agccttgtac tgaggctgta tacagcacag cctctcccca tccctccagc 1440 1500 cttatctgtc atcaccatca acccctccca tnysacctaa acaaaatcta acttgtaatt ccttgaacat gtcaggncat acattrttcc ttctgcctga gaagctcttc cttgtctctt 1560 1620 aantctagaa tgatgtaaag ttttgaataa gttgactatc ttacttcatg caaagaaggg 1680 acacatatga gattcatcat ccatgagaca gcaaatacta aaagtgtaat ttgattataa gagtttagat aaatatatga aatgcaagak ccacagaggg aatgtttatg gggcacgttt 1740 gtaagcctgg gatgtgaagm aaaggcaggg aacctcatag tatcttatat aatatacttc 1800 atttctctat ctctatcaca atatccaaca agcttttcac agaattcatg cagtgcaaat 1860 ccccaaaggt aacctttatc catttcatgg tgagtgcgct ttagaatttt ggcaaatcat 1920 actggtcact tatctcaact ttgagatgtg tttgtccttg tagttaattg aaagaaatag 1980 ggcactcttg tgagccactt tagggttcac tcctggcaat aaagaattta caaaga 2036

<210> 10

<211> 3582

<212> DNA

<400>

<213> Homo sapiens

10

acagaagaaa tagcaagtgc cgagaagctg gcatcagaaa aacagagggg agatttgtgt 60 ggctgcagcc gagggagacc aggaagatct gcatggtggg aaggacctga tgatacagag .120 gaattacaac acatatactt agtgtttcaa tgaacaccaa gataaataag tgaagagcta 180 gtccgctgtg agtctcctca gtgacacagg gctggatcac catcgacggc actttctgag 240 tactcagtgc agcaaagaaa gactacagac atctcaatgg caggggtgag aaataagaaa 300 ggctgctgac tttaccatct gaggccacac atctgctgaa atggagataa ttaacatcac 360 tagaaacagc aagatgacaa tataatgtct aagtagtgac atgtttttgc acatttccag 420 cccctttaaa tatccacaca cacaggaagc acaaaaggaa gcacagagat ccctgggaga 480 aatgcccggc cgccatcttg ggtcatcgat gagcctcgcc ctgtgcctgg tcccgcttgt 540 gagggaagga cattagaaaa tgaattgatg tgttccttaa aggatgggca ggaaaacaga 600 teetgttgtg gatatttatt tgaacgggat tacagatttg aaatgaagte acaaagtgag 660 cattaccaat gagaggaaaa cagacgagaa aatcttgatg gcttcacaag acatgcaaca 720 aacaaaatgg aatactgtga tgacatgagg cagccaagct ggggaggaga taaccacggg 780 gcagagggtc aggattetgg ceetgetgee taaactgtge gtteataace aaateattte 840

900

atatttetaa eeeteaaaac aaagetgttg taatatetga tetetaeggt teettetggg

960 cccaacattc tccatatatc cagccacact catttttaat atttagttcc cagatctgta ctgtgacctt tctacactgt agaataacat tactcatttt gttcaaagac ccttcgtgtt 1020 1080 gctgcctaat atgtagctga ctgtttttcc taaggagtgt tctggcccag gggatctgtg aacaggctgg gaagcatctc aagatctttc cagggttata cttactagca cacagcatga 1140 1200 tcattacgga gtgaattatc taatcaacat catcctcagt gtctttgccc atactgaaat 1260 tcatttccca cttttgtgcc cattctcaag acctcaaaat gtcattccat taatatcaca 1320 ggattaactt tiittittaa cciggaagaa ticaatgita caigcagcia igggaattia attacatatt ttgttttcca gtgcaaagat gactaagtcc tttatccctc ccctttgttt 1380 gatttttttt ccagtataaa gttaaaatgc ttagccttgt actgaggctg tatacagcac 1440 1500 agectetece cateceteca geettatetg teateaceat caacecetee cataceacet aaacaaaatc taacttgtaa ttccttgaac atgtcaggac atacattatt ccttctgcct 1560 gagaagctct tccttgtctc ttaaatctag aatgatgtaa agttttgaat aagttgacta 1620 tottacttca tgcaaagaag ggacacatat gagattcatc atcacatgag acagcaaata 1680 1740 ctaaaagtgt aatttgatta taagagttta gataaatata tgaaatgcaa gagccacaga gggaatgttt atggggcacg tttgtaagcc tgggatgtga agcaaaggca gggaacctca 1800 tagtatetta tataatatae tteatttete tatetetate acaatateea acaagetttt 1860 cacagaattc atgcagtgca aatccccaaa ggtaaccttt atccatttca tggtgagtgc 1920 gctttagaat tttggcaaat catactggtc acttatctca actttgagat gtgtttgtcc 1980 ttgtagttaa ttgaaagaaa tagggcactc ttgtgagcca ctttagggtt cactcctggc 2040 aataaagaat ttacaaagag ctactcagga ccagttgtta agagctctgt gtgtgtgt 2100 gtgtgtgtgt gagtgtacat gccaaagtgt gcctctctct cttgacccat tatttcagac 2160 ttaaaacaag catgttttca aatggcacta tgagctgcca atgatgtatc accaccatat 2220 ctcattattc tccagtaaat gtgataataa tgtcatctgt taacataaaa aaagtttgac 2280 ttcacaaaag cagctggaaa tggacaacca caatatgcat aaatctaact cctaccatca 2340 gctacacact gcttgacata tattgttaga agcacctcgc atttgtgggt tctcttaagc 2400 aaaatacttg cattaggtct cagctggggc tgtgcatcag gcggtttgag aaatattcaa 2460 ttctcagcag aagccagaat ttgaattccc tcatctttta ggaatcattt accaggtttg 2520 gagaggattc agacagetca ggtgetttea ctaatgtete tgaacttetg teeetetttg 2580 tgttcatgga tagtccaata aataatgtta tctttgaact gatgctcata ggagagaata 2640 taagaactct gagtgatatc aacattaggg attcaaagaa atattagatt taagctcaca 2700 ctggtcaaaa ggaaccaaga tacaaagaac tctgagctgt catcgtcccc atctctgtga 2760

2820 gccacaacca acagcaggac ccaacgcatg totgagatcc ttaaatcaag gaaaccagtg teatgagttg aatteteeta ttatggatge tagettetgg ceatetetgg eteteetett 2880 gacacatatt agcttctagc ctttgcttcc acgactttta tcttttctcc aacacatcgc 2940 ttaccaatcc tctctctgct ctgttgcttt ggacttcccc acaagaattt caacgactct 3000 3060 caagtetttt ettecatece caccactaae etgaattgee tagaceetta tttttattaa tttccaatag atgctgccta tgggctaata ttgctttaga tgaacattag atatttaaag 3120 tctaagaggt tcaaaatcca actcattatc ttctctttct ttcacctccc ctgctcctct 3180 ccctatatta ctgattgact gaacaggatg gtccccaaga tgccagtcaa atgagaaacc 3240 cagtggctcc ttgtggatca tgcatgcaag actgctgaag ccagaggatg actgattacg 3300 cctcatgggt ggaggggacc actcctgggc cttcgtgatt gtcaggagca agacctgaga 3360 tgctccctgc cttcagtgtc ctctgcatct cccctttcta atgaagatcc atagaatttg 3420 ctacatttga gaattccaat taggaactca catgttttat ctgccctatc aattttttaa 3480 acttgctgaa aattaagttt tttcaaaatc tgtccttgta aattactttt tcttacagtg 3540 tcttggcata ctatatcaac tttgattctt tgttacaact tt 3582

<210> 11 <211> 7130 <212> DNA

<213> Homo sapiens

<400> 11

gaattccaca ttgtttgctg cacgttggat tttgaaatgc tagggaactt tgggagactc 60 atatttctgg gctagaggat ctgtggacca caagatcttt ttatgatgac agtagcaatg 120 tatctgtgga gctggattct gggttgggag tgcaaggaaa agaatgtact aaatgccaag 180 acatctattt caggagcatg aggaataaaa gttctagttt ctggtctcag agtggtgcag 240 ggatcaggga gtctcacaat ctcctgagtg ctggtgtctt agggcacact gggtcttgga 300 gtgcaaagga tctaggcacg tgaggctttg tatgaagaat cggggatcgt acccacccc 360 tgtttctgtt tcatcctggg catgtctcct ctgcctttgt cccctagatg aagtctccat 420 gagctacaag ggcctggtgc atccagggtg atctagtaat tgcagaacag caagtgctag 480 ctctccctcc ccttccacag ctctgggtgt gggagggggt tgtccagcct ccagcagcat 540 ggggaggcc ttggtcagcc tctgggtgcc agcagggcag gggcggagtc ctggggaatg 600 aaggttttat agggctcctg ggggaggctc cccagcccca agcttaccac ctgcacccgg 660 agagetgtgt caccatgtgg gteceggttg tetteeteae eetgteegtg aegtggattg 720 gtgagagggg ccatggttgg ggggatgcag gagagggagc cagccctgac tgtcaagctg 780

aggetettte ecceecaace cageaceeca geecagaeag ggagetggge tettttetgt 840 900 ctctcccage cccacttcaa gcccatacce ccageccete catattgcaa cagteeteae 960 teccacacea ggtecceget eceteceaet taccecagaa etttetecee attgeccage cageteeetg eteceagetg etttaetaaa ggggaagtte etgggeatet eegtgtttet 1020 1080 ctttgtgggg ctcaaaacct ccaaggacct ctctcaatgc cattggttcc ttggaccgta tcactggtcc atctcctgag cccctcaatc ctatcacagt ctactgactt ttcccattca 1140 gctgtgagtg tccaacccta tcccagagac cttgatgctt ggcctcccaa tcttgcccta 1200 ggatacccag atgccaacca gacacctcct tetteetage caggetatet ggeetgagae 1260 aacaaatggg teceteagte tggeaatggg actetgagaa etecteatte eetgaetett 1320 agccccagac tetteattea gtggcccaca tttteettag gaaaaacatg agcateecca 1380 gccacaactg ccagctctct gattccccaa atctgcatcc ttttcaaaac ctaaaaacaa 1440 aaagaaaaac aaataaaaca aaaccaactc agaccagaac tgttttctca acctgggact 1500 tcctaaactt tccaaaacct tcctcttcca gcaactgaac ctggccataa ggcacttatc 1560 cctggttcct agcaccctt atcccctcag aatccacaac ttgtaccaag tttcccttct 1620 cccagtccaa gaccccaaat caccacaaag gacccaatcc ccagactcaa gatatggtct 1680 gggcgctgtc ttgtgtctcc taccctgatc cctgggttca actctgctcc cagagcatga 1740 agceteteca ecageaceag ecaceaacet geaaacetag ggaagattga eagaattece 1800 agectttece agetececet geceatgtee caggaetece agecttggtt etetgeeeee 1860 gtgtcttttc aaacccacat cctaaatcca tctcctatcc gagtccccca gttccccctg 1920 tcaaccctga ttcccctgat ctagcacccc ctctgcaggc gctgcgcccc tcatcctgtc 1980 teggattgtg ggaggetggg agtgegagaa geatteecaa eeetggeagg tgettgtgge 2040 ctctcgtggc agggcagtct gcggcggtgt tctggtgcac ccccagtggg tcctcacagc 2100 tgcccactgc atcaggaagt gagtaggggc ctggggtctg gggagcaggt gtctgtgtcc 2160 cagaggaata acagetggge attttececa ggataacete taaggecage ettgggaetg 2220 ggggagagag ggaaagttet ggtteaggte acatggggag geagggttgg ggetggaeea 2280 eccteccat ggetgeetgg gtetecatet gtgtecetet atgtetettt gtgtegettt 2340 cattatgtct cttggtaact ggcttcggtt gtgtctctcc gtgtgactat tttgttctct 2400 etetecetet ettetetgte tteagtetee atateteece etetetetgt cettetetgg 2460 teceteteta gecagtgtgt eteaceetgt atetetetge caggetetgt eteteggtet 2520 ctgtctcacc tgtgccttct ccctactgaa cacacgcacg ggatgggcct ggggggaccc 2580

2640 tgagaaaagg aagggetttg getgggegeg gtggeteaca eetgtaatee eageaetttg 2700 ggaggccaag gcaggtagat cacctgaggt caggagttcg agaccagcct ggccaactgg tgaaacccca tctctactaa aaatacaaaa aattagccag gcgtggtggc gcatgcctgt 2760 2820 agtcccagct actcaggagg ctgagggagg agaattgctt gaacctggga ggttgaggtt gcagtgagcc gagaccgtgc cactgcactc cagcctgggt gacagagtga gactccgcct 2880 2940 caaaaaaaa aaaaaaaaa aaaaaaaaa agaaaagaaa agaaaagaaa aggaatcttt tatccctgat gtgtgtgggt atgagggtat gagagggccc ctctcactcc attccttctc 3000 caggacatcc ctccactctt gggagacaca gagaagggct ggttccagct ggagctggga 3060 ggggcaattg agggaggagg aaggagaagg gggaaggaaa acagggtatg ggggaaagga 3120 ccctggggag cgaagtggag gatacaacct tgggcctgca ggccaggcta cctacccact 3180 tggaaaccca cgccaaagcc gcatctacag ctgagccact ctgaggcctc ccctccccgg 3240 cggtcccac tcagctccaa agtctctctc ccttttctct cccacacttt atcatcccc 3300 ggatteetet etaettggtt eteattette etttgaette etgetteeet tteteattea 3360 tetgtttete aetttetgee tggttttgtt ettetetete tetttetetg geceatgtet 3420 gtttctctat gtttctgtct tttctttctc atcctgtgta ttttcggctc accttgtttg 3480 teactgttet ecectetgee ettteattet etetgteett ttaccetett eettttteee 3540 ttggtttctc tcagtttctg tatctgccct tcaccctctc acactgctgt ttcccaactc 3600 gttgtctgta tttttggcct gaactgtgtc ttccccaacc ctgtgttttt ctcactgttt 3660 ctttttctct tttggagcct cctccttgct cctctgtccc ttctctcttt ccttatcatc 3720 ctcgctcctc attcctgcgt ctgcttcctc cccagcaaaa gcgtgatctt gctgggtcgg 3780 cacagootgt ttoatootga agacacaggo caggtattto aggtcagoca cagottooca 3840 cacccgctct acgatatgag cctcctgaag aatcgattcc tcaggccagg tgatgactcc 3900 agccacgacc tcatgctgct ccgcctgtca gagcctgccg agctcacgga tgctgtgaag 3960 gtcatggacc tgcccaccca ggagccagca ctggggacca cctgctacgc ctcaggctgg 4020 ggcagcattg aaccagagga gtgtacgcct gggccagatg gtgcagccgg gagcccagat 4080 gcctgggtct gagggaggag gggacaggac tcctgggtct gagggaggag ggccaaggaa 4140 ccaggtgggg tccagcccac aacagtgttt ttgcctggcc cgtagtcttg accccaaaga 4200 aacttcagtg tgtggacctc catgttattt ccaatgacgt gtgtgcgcaa gttcaccctc 4260 agaaggtgac caagttcatg ctgtgtgctg gacgctggac agggggcaaa agcacctgct 4320 cggtgagtca tccctactcc caagatcttg aggggaaagg tgagtgggga ccttaattct 4380 gggctggggt ctagaagcca acaaggcgtc tgcctcccct gctccccagc tgtagccatg 4440

4500 ccacctccc gtgtctcatc tcattccctc cttccctctt ctttgactcc ctcaaggcaa taggttatte ttacageaca acteatetgt teetgegtte ageacaeggt taetaggeae 4560 4620 ctgctatgca cccagcactg ccctagagcc tgggacatag cagtgaacag acagagagca gcccctccct tctgtagccc ccaagccagt gaggggcaca ggcaggaaca gggaccacaa 4680 4740 cacagaaaag ctggagggtg tcaggaggtg atcaggctct cggggaggga gaaggggtgg ggagtgtgac tgggaggaga catcctgcag aaggtgggag tgagcaaaca cctgccgcag 4800 gggagggag ggccctgcgg cacctggggg agcagaggga acagcatctg gccaggcctg 4860 ggaggagggg cctagagggc gtcaggagca gagaggaggt tgcctggctg gagtgaagga 4920 teggggeagg gtgegagagg gaagaaagga ceceteetge agggeeteae etgggeeaca 4980 ggaggacact gcttttcctc tgaggagtca ggaactgtgg atggtgctgg acagaagcag 5040 gacagggcct ggctcaggtg tccagaggct gccgctggcc tccctatggg atcagactgc 5100 5160 agggagggag ggcagcaggg atgtggaggg agtgatgatg gggctgacct gggggtggct ccaggcattg tecceacetg ggecettace cageeteect cacaggetee tggeceteag 5220 teteteceet ceaetecatt etecaeetae ceaeagtggg teattetgat caeegaactg 5280 accatgccag ccctgccgat ggtcctccat ggctccctag tgccctggag aggaggtgtc 5340 5400 tagtcagaga gtagtcctgg aaggtggcct ctgtgaggag ccacggggac agcatcctgc agatggteet ggeeettgte ceacegaeet gtetacaagg aetgteeteg tggaeeetee 5460 cctctgcaca ggagctggac cctgaagtcc cttccctacc ggccaggact ggagccccta 5520 eccetetgtt ggaateeetg eccacettet tetggaagte ggetetggag acatttetet 5580 cttcttccaa agctgggaac tgctatctgt tatctgcctg tccaggtctg aaagatagga 5640 ttgcccaggc agaaactggg actgacctat ctcactctct ccctgctttt acccttaggg 5700 tgattctggg ggcccacttg tctgtaatgg tgtgcttcaa ggtatcacgt catggggcag 5760 tgaaccatgt gccctgcccg aaaggccttc cctgtacacc aaggtggtgc attaccggaa 5820 gtggatcaag gacaccatcg tggccaaccc ctgagcaccc ctatcaactc cctattgtag 5880 taaacttgga accttggaaa tgaccaggcc aagactcaag cctccccagt tctactgacc 5940 tttgtcctta ggtgtgaggt ccagggttgc taggaaaaga aatcagcaga cacaggtgta 6000 gaccagagtg tttcttaaat ggtgtaattt tgtcctctct gtgtcctggg gaatactggc 6060 catgcctgga gacatatcac tcaatttctc tgaggacaca gataggatgg ggtgtctgtg 6120 ttatttgtgg gatacagaga tgaaagaggg gtgggatcca cactgagaga gtggagagtg 6180 acatgtgctg gacactgtcc atgaagcact gagcagaagc tggaggcaca acgcaccaga 6240

cactcacagc	aaggatggag	ctgaaaacat	aacccactct	gtcctggagg	cactgggaag	6300
cctagagaag	gctgtgagcc	aaggagggag	ggtcttcctt	tggcatggga	tggggatgaa	6360
gtaaggagag	ggactggacc	ccctggaagc	tgattcacta	tggggggagg	tgtattgaag	6420
tcctccagac	aaccctcaga	tttgatgatt	tcctagtaga	actcacagaa	ataaagagct	6480
cttatactgt	ggtttattct	ggtttgttac	attgacagga	gacacactga	aatcagcaaa	6540
ggaaacaggc	atctaagtgg	ggatgtgaag	aaaacaggga	aaatctttca	gttgtttct	6600
cccagtgggg	tgttgtggac	agcacttaaa	tcacacagaa	gtgatgtgtg	accttgtgta	6660
tgaagtattt	ccaactaagg	aagctcacct	gagccttagt	gtccagagtt	cttattgggg	6720
gtctgtagga	taggcatggg	gtactggaat	agctgacctt	aacttctcag	acctgaggtt	6780
cccaagagtt	caagcagata	cagcatggcc	tagagcctca	gatgtacaaa	aacaggcatt	6840
catcatgaat	cgcactgtta	gcatgaatca	tctggcacgg	cccaaggccc	caggtatacc	6900
aaggcacttg	ggccgaatgt	tccaagggat	taaatgtcat	ctcccaggag	ttattcaagg	6960
gtgagccctg	tacttggaac	gttcaggctt	tgagcagtgc	agggctgctg	agtcaacctt	7020
ttactgtaca	ggggggtgag	ggaaagggag	aagatgagga	aaccgcctag	ggatctggtt	7080
ctgtcttgtg	gccgagtgga	ccatggggct	atcccaagaa	ggaggaattc		7130
<210> 12 <211> 20 <212> DNA <213> Homo <400> 12 agcattccca <210> 13 <211> 3923						20
<212> DNA						
<400> 13	sapiens					
	tagcaagtgc	cgagaagctg	gcatcagaaa	aacagagggg	agatttgtgt	60
ggctgcagcc	gagggagacc	aggaagatct	gcatggtggg	aaggacctga	tgatacagag	120
gaattacaac	acatatactt	agtgtttcaa	tgaacaccaa	gataaataag	tgaagagcta	180
gtccgctgtg	agtctcctca	gtgacacagg	gctggatcac	catcgacggc	actttctgag	240
tactcagtgc	agcaaagaaa	gactacagac	atctcaatgg	caggggtgag	aaataagaaa	300
ggctgctgac	tttaccatct	gaggccacac	atctgctgaa	atggagataa	ttaacatcac	360
tagaaacagc	aagatgacaa	tataatgtct	aagtagtgac	atgtttttgc	acatttccag	420

480

cccctttaaa tatccacaca cacaggaagc acaaaaggaa gcacagagat ccctgggaga

, aatgeeegge egecatettg ggteategat gageetegee etgtgeetgg teeegettgt 540 gagggaagga cattagaaaa tgaattgatg tgttccttaa aggatgggca ggaaaacaga 600 tcctgttgtg gatatttatt tgaacgggat tacagatttg aaatgaagtc acaaagtgag 660 cattaccaat gagaggaaaa cagacgagaa aatcttgatg gcttcacaag acatgcaaca 720 aacaaaatgg aatactgtga tgacatgagg cagccaagct ggggaggaga taaccacggg 780 gcagagggtc aggattctgg ccctgctgcc taaactgtgc gttcataacc aaatcatttc 840 atatttetaa eeeteaaaae aaagetgttg taatatetga tetetaeggt teettetggg 900 cccaacattc tccatatatc cagccacact catttttaat atttagttcc cagatctgta 960 ctgtgacctt tctacactgt agaataacat tactcatttt gttcaaagac ccttcgtgtt 1020 gctgcctaat atgtagctga ctgtttttcc taaggagtgt tctggcccag gggatctgtg 1080 aacaggctgg gaagcatctc aagatctttc cagggttata cttactagca cacagcatga 1140 tcattacgga gtgaattatc taatcaacat catcctcagt gtctttgccc atactgaaat 1200 tcatttccca cttttgtgcc cattctcaag acctcaaaat gtcattccat taatatcaca 1260 ggattaactt tttttttaa cctggaagaa ttcaatgtta catgcagcta tgggaattta 1320 attacatatt ttgttttcca gtgcaaagat gactaagtcc tttatccctc ccctttgttt 1380 gatttttttt ccagtataaa gttaaaatgc ttagccttgt actgaggctg tatacagcac 1440 agcetetece cateceteca geettatetg teatcaceat caacecetee cataceacet 1500 aaacaaaatc taacttgtaa ttccttgaac atgtcaggac atacattatt ccttctgcct 1560 gagaagctct tccttgtctc ttaaatctag aatgatgtaa agttttgaat aagttgacta 1620 tcttacttca tgcaaagaag ggacacatat gagattcatc atcacatgag acagcaaata 1680 ctaaaagtgt aatttgatta taagagttta gataaatata tgaaatgcaa gagccacaga 1740 gggaatgttt atggggcacg tttgtaagcc tgggatgtga agcaaaggca gggaacctca 1800 tagtatetta tataatatae tteatttete tatetetate acaatateea acaagetttt 1860 cacagaattc atgcagtgca aatccccaaa ggtaaccttt atccatttca tggtgagtgc 1920 gctttagaat tttggcaaat catactggtc acttatctca actttgagat gtgtttgtcc 1980 ttgtagttaa ttgaaagaaa tagggcactc ttgtgagcca ctttagggtt cactcctggc 2040 aataaagaat ttacaaagag ctactcagga ccagttgtta agagctctgt gtgtgtgt 2100 gtgtgtgtgt gagtgtacat gccaaagtgt gcctctctct cttgacccat tatttcagac 2160 ttaaaacaag catgttttca aatggcacta tgagctgcca atgatgtatc accaccatat 2220 ctcattattc tccagtaaat gtgataataa tgtcatctgt taacataaaa aaagtttgac 2280

2340 ttcacaaaag cagctggaaa tggacaacca caatatgcat aaatctaact cctaccatca gctacacact gcttgacata tattgttaga agcacctcgc atttgtgggt tctcttaagc 2400 aaaatacttg cattaggtct cagctggggc tgtgcatcag gcggtttgag aaatattcaa 2460 ttctcagcag aagccagaat ttgaattccc tcatctttta ggaatcattt accaggtttg 2520 gagaggattc agacagctca ggtgctttca ctaatgtctc tgaacttctg tccctctttg 2580 tgttcatgga tagtccaata aataatgtta tctttgaact gatgctcata ggagagaata 2640 taagaactct gagtgatatc aacattaggg attcaaagaa atattagatt taagctcaca 2700 ctggtcaaaa ggaaccaaga tacaaagaac tctgagctgt catcgtcccc atctctgtga 2760 gccacaacca acagcaggac ccaacgcatg tctgagatcc ttaaatcaag gaaaccagtg 2820 tcatgagttg aattctccta ttatggatgc tagcttctgg ccatctctgg ctctcctctt 2880 gacacatatt agcttctagc ctttgcttcc acgactttta tcttttctcc aacacatcgc 2940 ttaccaatcc tctctctgct ctgttgcttt ggacttcccc acaagaattt caacgactct 3000 caagtetttt ettecatece caccactaae etgaatgeet agaccettat ttttattaat 3060 ttccaataga tgctgcctat gggctatatt gctttagatg aacattagat atttaaagct 3120 caagaggttc aaaatccaac tcattatctt ctctttcttt cacctccctg ctcctctcc 3180 tatattactg attgcactga acagcatggt ccccaatgta gccatgcaaa tgagaaaccc 3240 agtggctcct tgtggtacat gcatgcaaga ctgctgaagc cagaaggatg actgattacg 3300 cctcatgggt ggaggggacc actcctgggc cttcgtgatt gtcaggagca agacctgaga 3360 tgctccctgc cttcagtgtc ctctgcatct cccctttcta atgaagatcc atagaatttq 3420 ctacatttga gaattccaat taggaactca catgttttat ctgccctatc aattttttaa 3480 acttgctgaa aattaagttt tttcaaaatc tgtccttgta aattactttt tcttacagtg 3540 tcttggcata ctatatcaac tttgattctt tgttacaact tttcttactc ttttatcacc 3600 aaagtggctt ttattctctt tattattatt attttctttt actactatat tacgttgtta 3660 ttattttgtt ctctatagta tcaatttatt tgatttagtt tcaatttatt tttattgctg 3720 acttttaaaa taagtgattc ggggggtggg agaacagggg agggagagca ttaggacaaa 3780 tacctaatgc atgtgggact taaaacctag atgatgggtt gataggtgca gcaaaccact 3840 atggcacacg tatacctgtg taacaaacct acacattctg cacatgtatc ccagaacgta 3900 aagtaaaatt taaaaaaaag tga 3923